

# eHealth Initiative Annual Conference

10.11.07



# Shared Health Value Story

## Transforming Care

## **The purpose of this presentation is to illustrate how Shared Health has utilized health information exchange (HIE) to transform healthcare**

- Shared Health Origins
- Improvements in Healthcare
- Outcome Metrics
- Stakeholder Involvement
- Leadership and Commitment
- Leadership Involvement
- Commitment to Sharing Best Practices
- Questions

## **Need for TennCare (State Medicaid Agency) to lower cost and improve the quality of care in Tennessee**

- Visibility into patients record across providers was essential
- Cost Savings identified five areas:
  - ❑ Medications
  - ❑ Wellness
  - ❑ Clinical Waste
  - ❑ Fraud and Abuse
  - ❑ Better Care & Oversight

## **Tennessee Governor's call for a solution**

### **Shared Health created**

- Electronic Health Record (EHR) that spans provider networks
- Designed for multi payer/multi provider model
- Facilitate the coordination of care among all stakeholders including RHIO's

## Mission

- To improve the quality, safety, and efficiency of health care by connecting clinicians, consumers, and health coaches through a secure information exchange

## Vision

- To be a trusted health information integrator and exchange

### ***Market Position:***

*We facilitate the sharing of administrative data with core clinical data to support informed decision-making, leading to improved health care outcomes.*

# Challenge Shared Health is Addressing

## Issues

- The high cost of healthcare
- The lack of access to complete medical history and patient data
- Impacting quality of care where it's needed; at the point of care

## Focusing on Cost Savings in Five Areas

- Medications
- Wellness
- Clinical Waste
- Fraud and Abuse
- Better Care & Oversight

***Shared Health's goals for its initiative are to improve the quality, safety, and efficiency of health care by connecting clinicians, consumers, and authorized stakeholders through a secure information exchange.***

# How Health Information Exchange (HIE) is Helping Achieve our Goals

## Solution-based Approach

- Continuum-based Clinical Health Record (CHR)
  - Shared Health Clinical Health Record™
  - Shared Health ePrescribe®
  - Shared Health's CHR™ - My SharedHealth™
  - EPSDT Tracking
- Clinical Outreach Program
- In-depth Communications



## Clinical Health Record

- Demographic Data – across all providers and payers
- Claims Encounter Data - across all providers and payers
- Prescription Drug History – regardless of location of fulfillment
- Laboratory Orders and Results – across all providers
- Immunizations – for central location for the state
- ePrescribe solution – applies across the entire customer base
- EPSDT – Well-child Online Exams
- Allergies and Vitals – any authorized physician can view
- Secure messaging

mdgclini...

Help

Home

Logout

DM Search

Patient Search

Patient Search

ePrescribe

My Account

Patient List

Information Resources

Notice of Information Availability

Privacy and Security

Help

My Feedback

Contact Us

Worklists

Showing all documents

View By

Date

Look For

Status

All

Clear

Patient Demographics

PCP Information

Name:

Jane Smith

DOB:

13 Apr 1941

Age:

66 years

Home Phone:

221-3344

Member ID:

90194652001

Name:

Dr. Robert Jones

Address:

321 Main Street, Chattanooga, TN 37412

Phone:

778-9900

Provider ID:

50339204813

Allergies

Date of Onset	Allergy Agent	Reaction	Severity	Source	End Date	Comments
06/25/2005	Tetanus	Anaphylaxis	High	User Entered		
02/13/2006	Penicillin	Difficulty Breathing	High	User Entered		First time noticed

Medications

Source	Drug	Date Dispensed	Dose	Amt Dispensed	Pharmacy Name	Prescribing Physician
Claim	Prednisone	02/14/2005	Dose	60 mg/day PO 90 tabs	Walgreens	Robert Jones
Claim	Celebrex	02/26/2007	Dose	100 mg PO BID	Walgreens	Robert Jones

Diagnoses

Procedures

Date	Diag.	Diagnosis Description	Provider	Claim #
02/13/2005	710.1	Systemic lupis erythematosus	R. Jones	429834792
02/26/2005	733.0	Osteoporosis	R. Jones	429832658
05/13/2005	250.0	Diabetes Mellitus	R. Jones	429836891

Date	Procedure	Procedure Description	Provider	Claim #
02/13/2005	77078	Bone Density	R. Jones	429834792

## ePrescribe

- Formularies pre-loaded for cost effective care
- Alerts for drug-drug, drug-allergy, and drug-food interactions (reducing errors)
- No handwriting to decipher (reducing errors)
- Prescriptions can be electronically sent to pharmacies
- Queries multiple sources of medication history to assemble the most complete medication history possible
- Checks for patient-specific formularies

**Patient:** Smith, Jane **Gender, DOB:** F, 04/13/1959 (48 Y) **MRN:**AHS3  
**Active allergies:** Tetanus, Penicillin  
**Active problems:** BACTERIAL INFECTION NEC, DM TYPE II W/O COMP NT ST UNCNTR  
**Active medications:** Celabrex  
**Patient's pharmacy:** JAMES RICHARD ADAMS MD, 1234 MAIN ST, CHATTANOOGA, TN 37412

The Medical Center  
(2500357)  
Dr. Jones



Google Custom Search Search

Patients

Tasks

Reports

Settings

Choose Medication

Search My Rx History

Search All Meds

Write Free Form Script

Help With This Screen

Modify Sig

Send to Assistant

Print Script

Choose Pharmacy ▶

Send to Patient's Pharmacy

Cancel

Medication And Sig

Quantity DAW Refills Days

Formulary Alternatives

Drug Name Status Cost Index

Chloral Hydrate	😊	
Estazolam	😊	
Temazepam	😊	
Triazolam	😊	
Aquachloral	😊	
Chloral Hydrate	😊	
Somnote	😊	
Lunesta	😊	
Flurazepam HCl	🤔	

Coverage & Co-pay

No drug-specific co-pay information available.

<input type="radio"/> ⚠️	Procaine HCl , POWD, 30 GM Bottle,USE AS DIRECTED.	10.00	<input type="checkbox"/>	0	10
<input type="radio"/> 😊	Penicillin V Potassium , 500 MG TABS, CHEW AND SWALLOW 1 TABLET DAILY.	21.00	<input type="checkbox"/>	2	60
<input type="radio"/> ⚠️	Septra , 400-80 MG TABS, TAKE 1 TABLET 2 TIMES DAILY AFTER MEALS	30.00	<input type="checkbox"/>	1	15
<input type="radio"/> 😊	Ampicillin , 500 MG CAPS, TAKE 1 CAPLET EVERY 4-6 HOURS DAILY AS NEEDED.	60.00	<input type="checkbox"/>	0	10
<input type="radio"/> ⚠️	Tetracycline HCl , 250 MG CAPS, TAKE 1 CAPSULE DAILY BEFORE EATING.	30.00	<input type="checkbox"/>	0	30
<input type="radio"/> ⚠️	Trecator , 250 MG TABS, CHEW AND SWALLOW 1 TABLET DAILY.	30.00	<input type="checkbox"/>	0	30
<input type="radio"/> 😊	Flunisolide , 0.025 % SOLN, 25 ML Bottle,INSTILL 2 SPRAYS IN EACH NOSTRIL ONCE DAILY	1.00	<input type="checkbox"/>	11	30
<input type="radio"/> 😊	Amoxicillin , 500 MG CAPS, TAKE 1 CAPSULE TWICE DAILY.	30.00	<input type="checkbox"/>	5	15
<input type="radio"/> ⚠️	Nexium , 40 MG CPDR, TAKE 1 CAPSULE ONCE DAILY.	60.00	<input type="checkbox"/>	0	60
<input checked="" type="radio"/> ⚠️	Ambien , 10 MG TABS, TAKE 1 TABLET AT BEDTIME.	30.00	<input type="checkbox"/>	0	30
<input type="radio"/> ⚠️	Bee Pollen , 500 MG TABS, CHEW AND SWALLOW 1 TABLET DAILY.	30.00	<input type="checkbox"/>	0	30
<input type="radio"/> 😊	Hydrocodone-Acetaminophen , 10-325 MG TABS, TAKE 1 TABLET DAILY IN THE EVENING BEFORE DINNER.	10.00	<input type="checkbox"/>	0	10

## Shared Health's CHR™ - My SharedHealth™

- Portal allows registered consumers to view the same information their clinicians are accessing within the CHR
- Personal health record can operate as a stand-alone solution or can be integrated into existing payer portals and/or personal health record systems
- Alerts for drug-drug, drug-allergy, and drug-food interactions (reducing errors)

[Logout](#)[My Family](#)[My Family](#)[My Account](#)[Information  
Resources](#)[Notice of  
Information  
Availability](#)[Privacy and  
Security](#)[Help](#)[My Feedback](#)[Contact Us](#)

Showing all documents



View By

Date



Look For



Status

All



Clear

## My Diagnoses



Date	Diagnosis	Diagnosis Description	Provider	Claim #
02/13/2005	710.1	Systemic lupus erythematosus	Robert Jones	429834792
02/26/2005	733.0	Osteoporosis	Robert Jones	429832658
05/13/2005	250.0	Diabetes Mellitus	Robert Jones	429836891

## My Immunizations



Immunization	Date	Reaction	Age When Admin.	Servicing Provider
DTAP-HEPB-IP IM	01/21/2004	O/E - fever - general	62	Mark Smith
INF VIRUS SPLT PRSRV FR 6-35 MO	05/14/2005	Swelling at injection site	64	Robert Jones

## My Medications



Source	Drug	Date Dispensed	Dose	Amt Dispensed	Pharmacy Name	Prescribing Physician
Claim	Prednisone	02/14/2005	Dose	60 mg/day PO 90 tabs	Walgreens	Robert Jones
Claim	Celebrex	02/26/2007	Dose	100 mg PO BID	Walgreens	Robert Jones

## My Procedures



Date	Procedure	Procedure Description	Provider	Claim #
02/13/2005	77078	Bone Density	Robert Jones	429834792

## Shared Health's EPSDT screens:

- Provide for consistency in compliance with federal and state mandated requirements
- Require fields must be completed before the physician can sign off on the screen
- Include an Initial Assessment form to capture the Comprehensive Health and Developmental History
- Establish a template for well child exams for all children regardless of payer
- Provide reminders that exams are due to insure compliance with periodicity schedules



# Initial Assessment

## Medical and Family History

### Medical History

Hospitalization  
& Treatment\* ☐ No  
☐ Yes

Comments

Surgeries\* ☐ No  
☐ Yes

Comments

Injuries /  
Accidents\* ☐ No  
☐ Yes

Comments

Significant  
Illnesses\* ☐ No  
☐ Yes

Comments

Family  
History of  
congenital  
defects\* ☐ No  
☐ Yes

Comments

Hereditary  
disorders  
or risk  
conditions\* ☐ No  
☐ Yes

Comments

Sexually  
Active ☐ No  
☐ Yes

If yes, Method  
of  
Contraception:

- ☐ Oral contraceptive pills  
☐ IUD  
☐ Diaphragms  
☐ Condoms  
☐ Progesterone ring  
☐ Withdrawal  
☐ Other

Sexually  
Transmitted  
Diseases ☐ No  
☐ Yes

If yes,  
describe:

- ☐ Syphilis  
☐ HPV  
☐ HSV  
☐ Chlamydia  
☐ Trichomonis  
☐ Other

Child has had

☐ Chicken Pox

Date

☐ Mumps

Date

☐ Measles

Date

☐ TB

Date

Any  
Developmental  
Problems



## Clinical Outreach Program

- Clinician adoption of Health Information Technology (HIT) critical for benefits to be realized
- Hands on Program designed to help physicians incorporate the HIE into their existing workflow
- Outreach members work with provider practices and hospitals one on one to understand how to incorporate the system into their workflow

## In-depth Communications Program

- Open and consistent communications regarding:
  - ❑ Security
  - ❑ Privacy
  - ❑ Benefits
  - ❑ Opt-out process
  - ❑ User access of Shared Health
- All participants and clinicians participating in the program have targeted communications programs designed to inform and educate them on the program benefits and details
- Sponsors and Shared Health coordinate efforts according to a focused strategy to inform beneficiaries, providers, and all other stakeholders

# Regional Map Reference

## Shared Health - Clinical Outreach Regions



Region	Region Name
Region 1	Johnson City
Region 2	Knoxville
Region 3	Chattanooga
Region 4	Nashville
Region 5	Jackson
Region 6	Memphis

## Four Primary Elements were used to Assess effectiveness

- Clinical Adoption
- Episode Efficiency
- Clinical Resource Utilization
- Provider Satisfaction

## Clinical Adoption

- One of the most important drivers behind the success of an HIE program is provider use
- Provider use is the only methodology to providing higher quality more efficient healthcare
- Focused effort by Clinical Outreach Team identifies potential high utilization providers and works with those providers to incorporate Shared Health into their daily workflow
- Shared Health focuses on the following metrics to measure provider adoption
  - ❑ Unique patient lookups
  - ❑ Monthly CHR user statistics
  - ❑ Completed EPSDT (well child care) forms

## Clinical Adoption

- Presently adoption is at 13.1%
- Utilization to date is greater than 10,000 unique patient lookups a month from approximately 950 providers
- Unique patient searches increased at a rate of approximately 10% per month
- Scripts written per month - 1650
- EPSDT Analysis shows Shared Health users provided 11% more EPSDT services to eligible members
  - Improvement from 73% penetration to 81% penetration
  - Evidence that use of Shared Health increases the likelihood of appropriate follow-through of EPSDT services

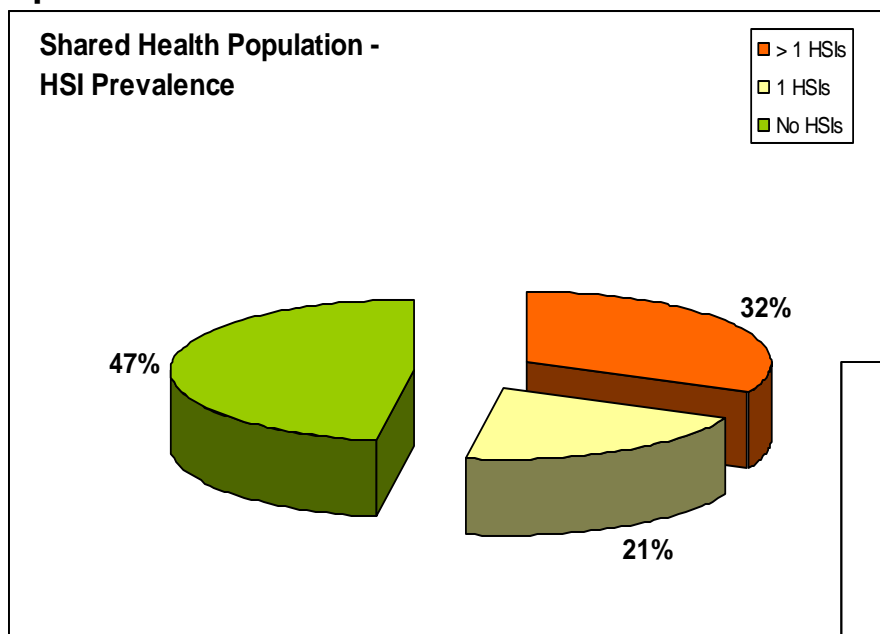
## Episode Efficiency

- Evaluate impact by using Episode Treatment Groupers (ETGs); aggregate like episodes of care into homogeneous groupings of similar conditions
- ETG methodology validated nationally is effective in studying comparative care efficiency and cost
- ETG efficiency value 1.0 represents a case where the actual episode cost was equal to expected cost
- An efficiency value 2.0 represents a case where the cost is twice what was expected
- Focused on 102 practices (Super Adopters\*) meeting a criteria of accessing enrollees in the CHR at least four times per month during six months or more in 2006
- 102 practices accessed 12,477 unique patients who accounted for 7,292 discrete ETGs or episodes of care attributed to those practices
- Attribute an episode of care to a physician practice when it accounts for  $\geq 60$  percent of each episode's E&M codes. (Please note that ETGs are attributed to clinician practices; not hospitals.)

\*Super Adopters are entities using the system 4 or more times a month over an extended period of time.

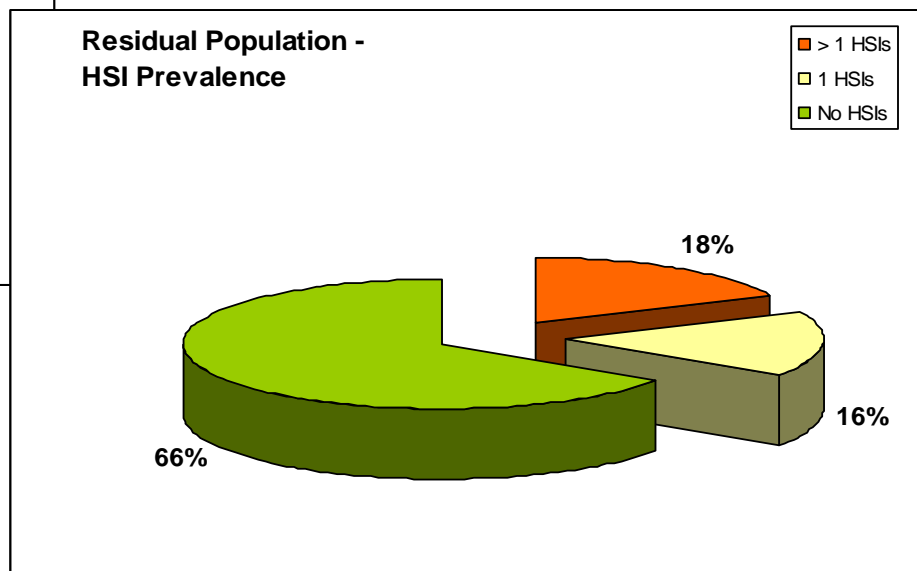
# HSI Report: Looked-up Patients are “Sicker”

## Prevalence of Health Status Indicators (HSI) in the population.



## Health Status Indicators (HSI)

- HSIs capture key chronic clinical conditions and disease states that drive utilization and cost. HSI >1 indicates a sicker patient.



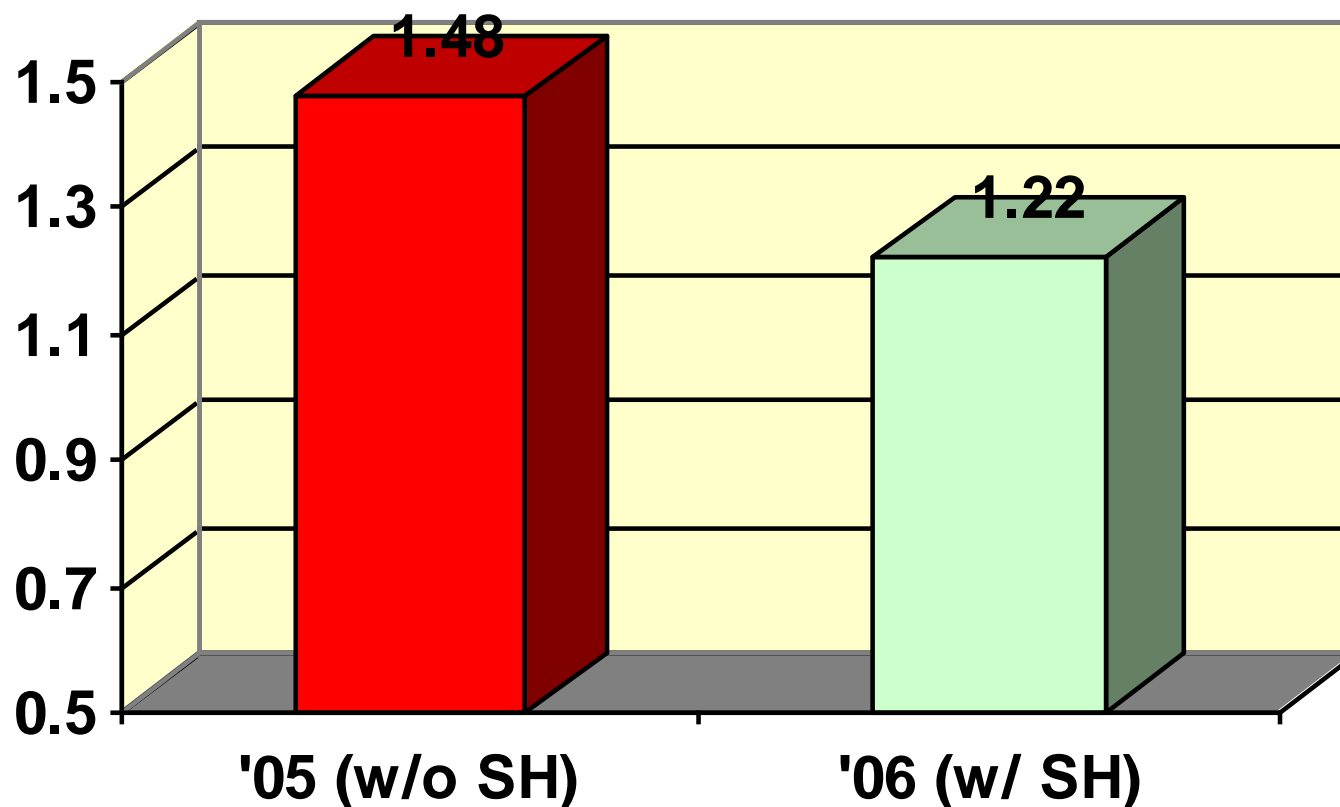
Source: MCSOURCE 5.3

Period: January 2006 thru March 2006

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# Efficiency Gain: Frequent Users, Same Patients and Same Conditions

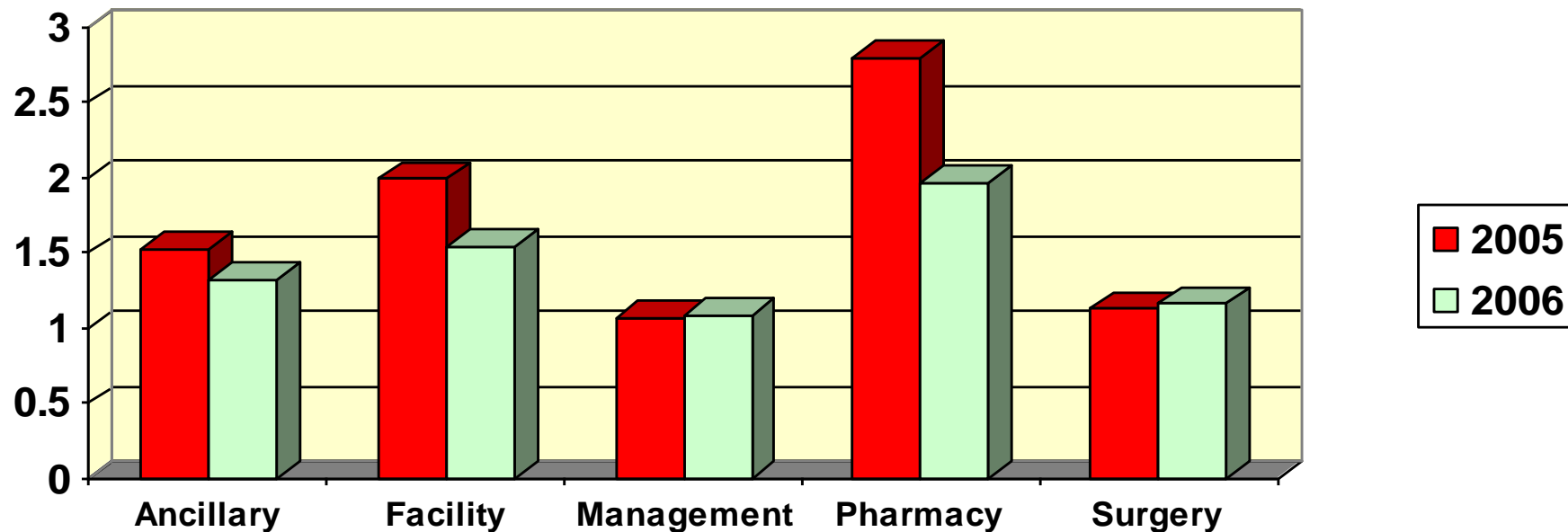
## ETG Efficiency (Lower is Better)





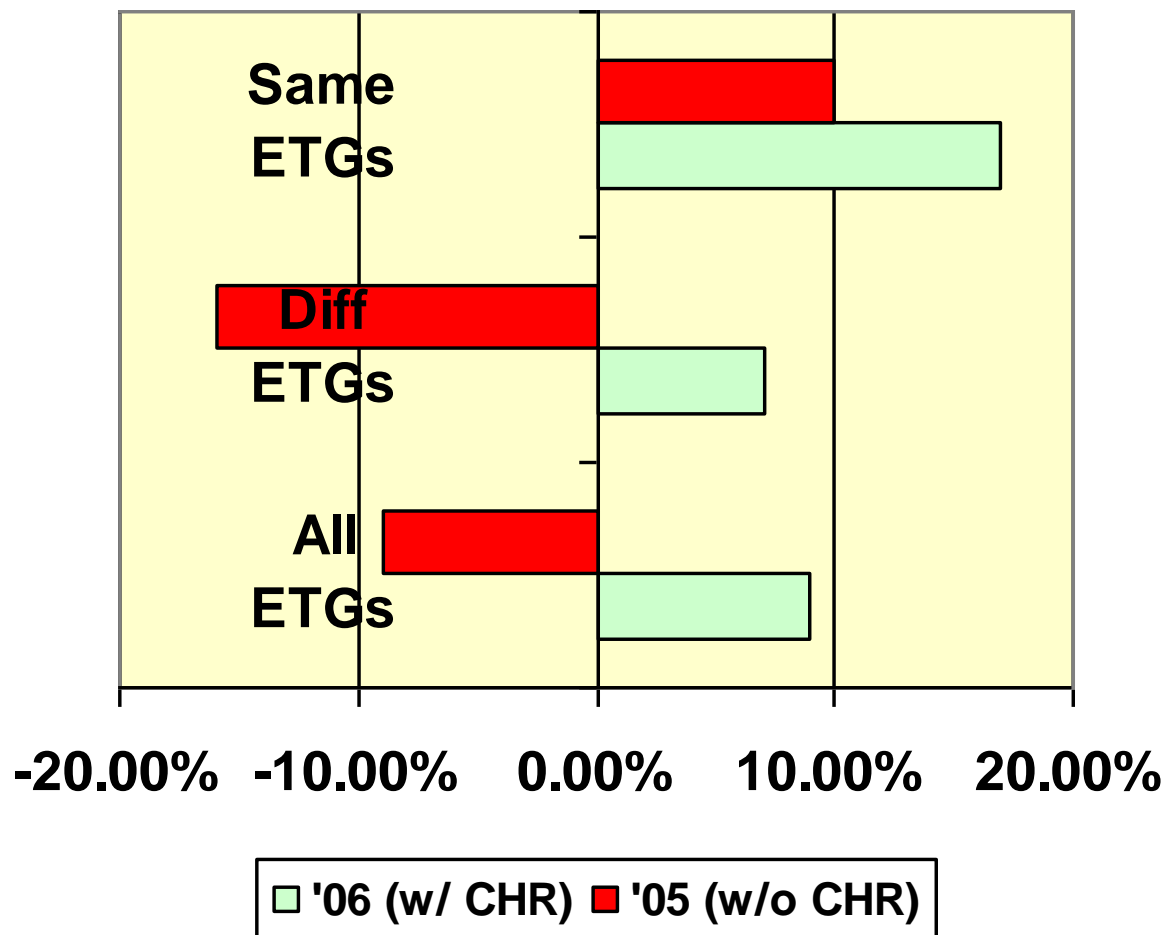
# Efficiency Gain: Allocation in the “Right” Categories

## Efficiency Gains by Category



# A Head Start: Helping Clinicians to Get Better Faster

## SH Efficiency Change Impact: Same vs. Different Conditions (ETGs)



## Efficiency

- EPSDT – 11% improvement from 73% penetration to 81% penetration
- Emergency Department (ED)
  - ❑ 30% fewer services per visit
  - ❑ 15% fewer patients admitted to hospital
  - ❑ 21% lower cost/visit
  - ❑ 21% efficiency improvement in ETGs containing a Shared health ED encounter
- Pharmacy – eRX
  - ❑ 9% shift toward generics
  - ❑ 10% decline in brand
  - ❑ Pre-authorized (PA) drugs were 11 percentage points less
  - ❑ 9 percentage point improvement in covered
  - ❑ Total \$9.00 less per script
- Primary Care Physician (PCP) Services
  - ❑ 5% improvement in ETG service efficiency
  - ❑ Overall 21% improvement when scripts included

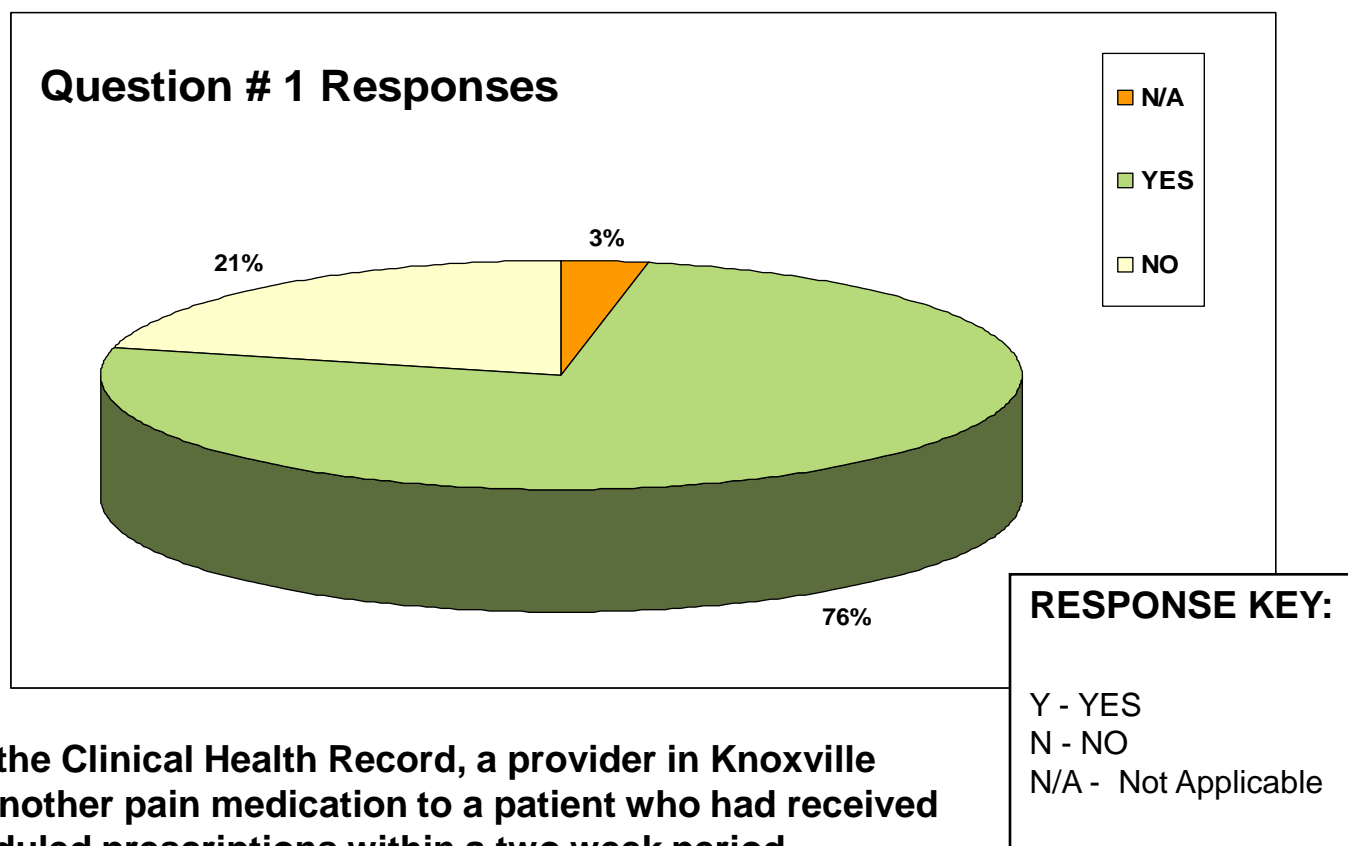
## Clinical Resource Utilization

- Shared Health is pursuing ongoing case studies to evaluate the impact of the CHR on several aspects of resource utilization
  - ePrescribing
  - ED Visits
- Prescribing metrics looked at
  - Formulary Compliance
  - Generic Use
  - Costs per Prescription
- Analysts focused on several emergency departments and primary care sites
  - Measures examined were:
    - Cost per Visit
    - Admissions
    - Services Utilized
- This is an ongoing study and preliminary findings are presented

## Provider Satisfaction

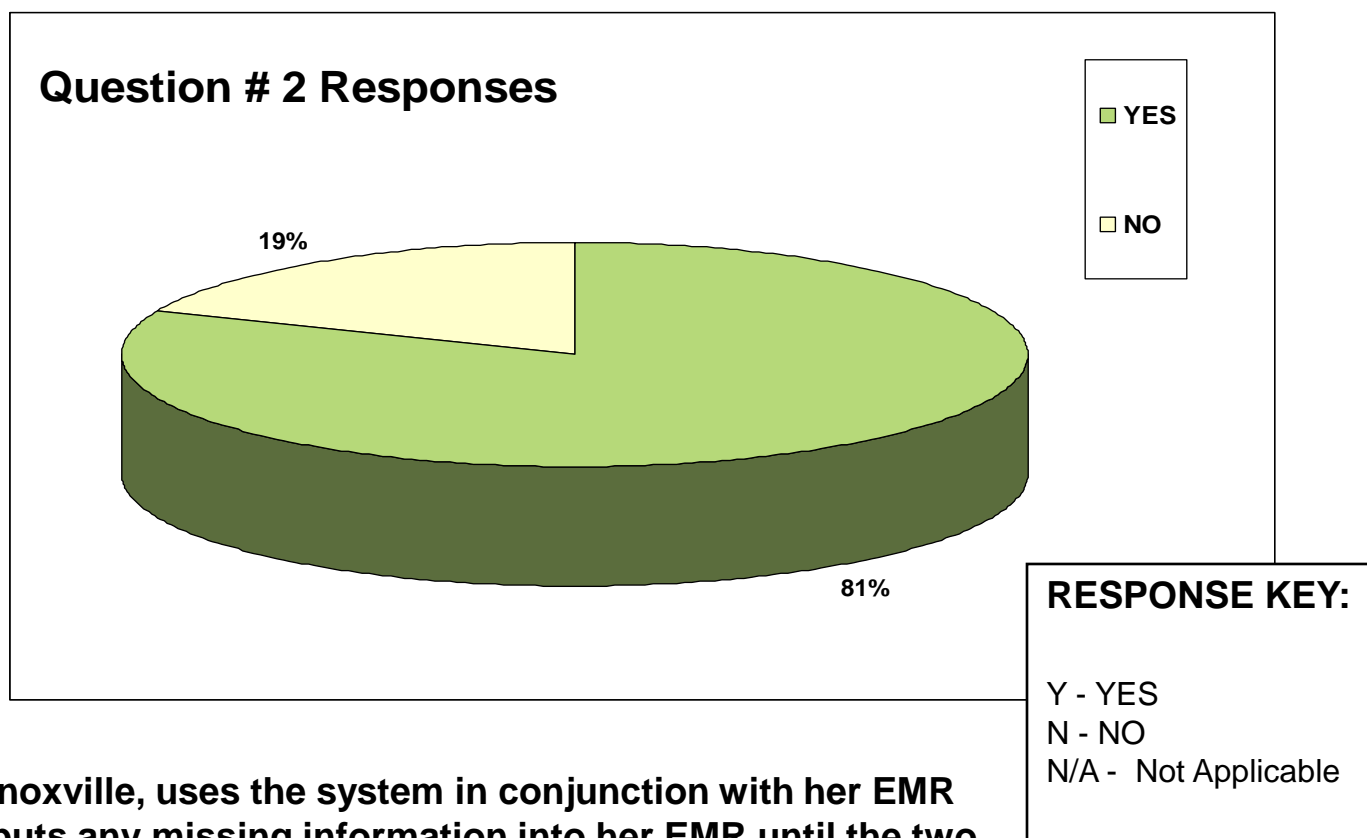
- Measured by formal evaluation questionnaires distributed to providers utilizing Shared Health services
- Small number of questions used to achieve high volume of feedback
- Questionnaires focused on providers' overall satisfaction to specific utilization experiences with specific modules
- The initial survey asked the following questions/statement:
  - ❑ As a result of using the Shared Health Clinical Health Record, did you modify or eliminate a prescription
  - ❑ Did the Shared Health CHR assist you with providing high quality, cost effective care
  - ❑ My practice has successfully integrated the Shared Health CHR solution into our normal office workflow

- **Question # 1 – As a result of using the Shared Health Clinical Health Record, did you modify or eliminate a prescription?**



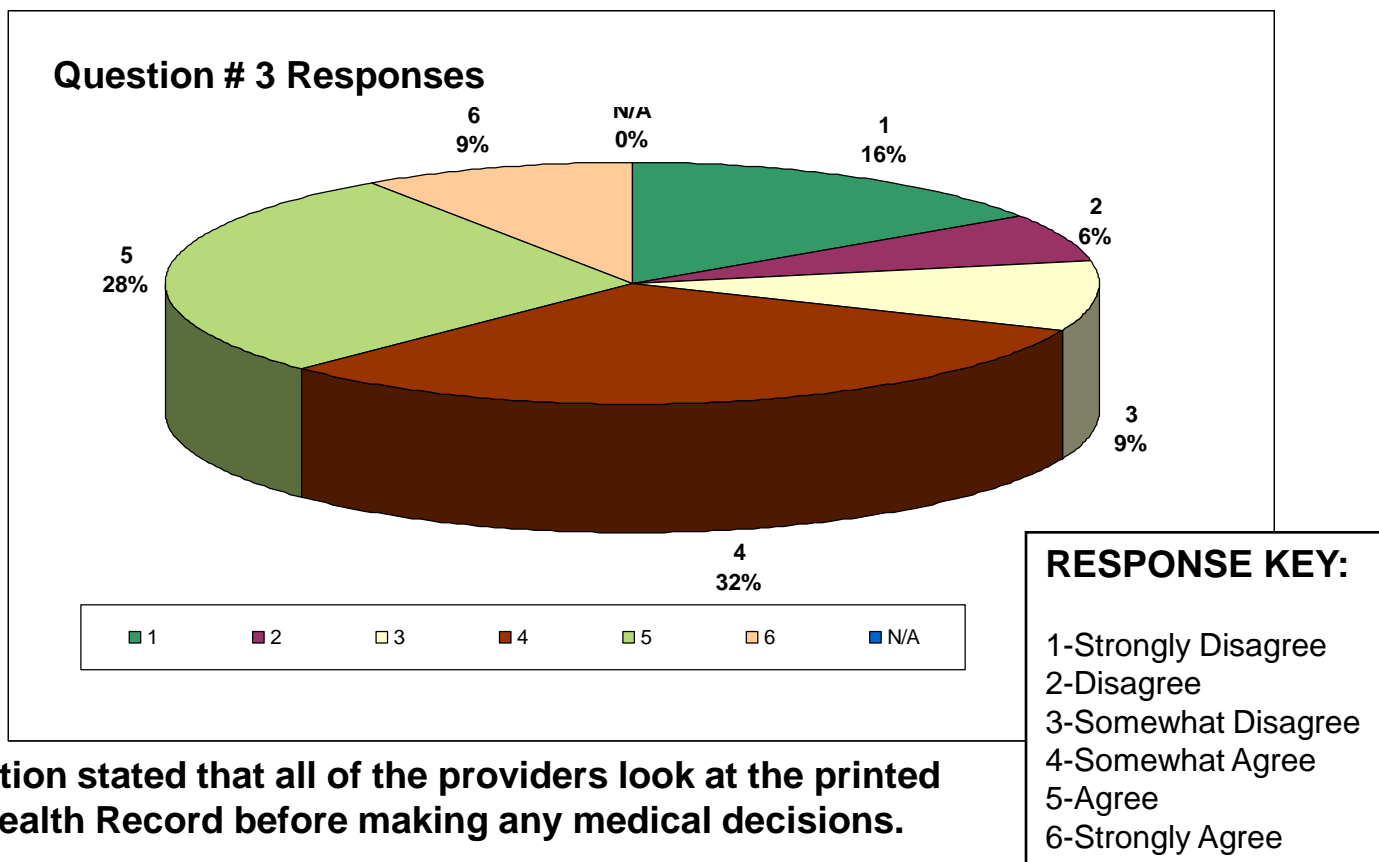
•After reviewing the Clinical Health Record, a provider in Knoxville refused to give another pain medication to a patient who had received four recent scheduled prescriptions within a two week period.

- **Question # 2 – Did the Shared Health Clinical Health Record assist you with providing high quality, cost effective care?**



•A provider in Knoxville, uses the system in conjunction with her EMR system. She inputs any missing information into her EMR until the two systems are integrated.

- **Question # 3 – The information I retrieve from the Shared Health Clinical Health Record is useful and helps clinicians make more informed treatment decisions.**





## Stakeholder Programs

**Shared Health has worked with many stakeholder groups over the last three years. Our experience has been that Leadership takes responsibility and accountability for each stakeholder through the following functional areas**

- Clinical Outreach
- Technology
- Public Policy
- Privacy & Security

# Stakeholder Involvement after two years

**Early on in the process stakeholders from around the state were involved in many aspects of the program. They provided valuable feedback to the design and development process of the program. Two years into the program their roles have evolved. Select stakeholders include**

## **State Medicaid Program**

- To date the State's Medicaid program has been the single largest participant in the Shared Health program
  - They provide critical mass and a source of funding
  - They provide data that pre-populates the Shared Health CHR

## **Primary Care Physicians**

- Primary source of feedback and input; contribute and utilize data via EPSDT, ePrescribing, Vitals, lab results, & claims submissions

## **Healthcare IT suppliers**

- Shared Health contracts with a variety of Health IT suppliers in order to create the HIE service. Shared health works with these suppliers in order to help define, construct, and maintain the HIE

## Pharmacy Benefit Management Companies

- Provide claimed medications on behalf of individual patients
- Provide drug formulary information at the POC where formularies aren't available via RxHub

## Independent Laboratories

- Source of clinical data specific to individual participants
- Lab results have proven to be a very beneficial data point for providers at the point of care

## Hospitals

- Core user group of the Shared Health CHR
- Early on provided programmatic input into the needs and requirements their facilities had for the CHR
- Today Shared Health provides summary level information that assists the ER in assessing a patient's medical history.
- Hospitals are also utilizing the Shared Health CHR to assist in complying with medication reconciliation requirements.

## Stimulating innovation, building knowledge and capabilities, and ensuring a sustainable initiative

- Heavy Leadership involvement in direct provider interaction via state and nationwide conferences and councils including, but not limited to:
  - ❑ eHealth Initiative
  - ❑ AHIC
  - ❑ AQA
  - ❑ National Governor's Association Health Committee
  - ❑ AHIP
  - ❑ HIMSS
  - ❑ State Medical and Hospital Associations
  - ❑ CCHIT EMR Interoperability Committee
  - ❑ Governor Bredesen's ePrescribing Task Force
  - ❑ State of Tennessee's eHealth Advisory Council
- Shared Health was chosen to conduct pilot efforts with AHIP (PHR Portability Pilot) and CMS (PHR Feasibility Study)
- Continuous participation in groups and interaction with thought leaders from state RHIO's, Public Advisors, and industry sponsored events.

# Advancing Healthcare in the U.S. Model for Value-driven Healthcare



## Key Shared Health Advancements:

- Shared Health has experience in both public / private health IT initiatives and already represents the largest public/private HIE in the country, with approximately 1.8 million commercial and government-insured patients enrolled in the system
- Shared Health has a proven methodology to drive provider adoption
- Provides a valuable tool to treat patients with chronic conditions
- Developed comprehensive policies and procedures to protect patient health information at all points during health information exchange
- Through a statewide HIE, Shared Health is making a material impact on the cost and quality of care as evidenced by initial value findings.

# Questions

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